REMARKS

This application is believed to be in condition for allowance at the time of the next Official Action.

The Official Action rejects claims 1-5 and 7-9 under 35 USC §102(b) as being anticipated by TSUKAMOTO 4,856,326. Reconsideration and withdrawal of this rejection are respectfully requested for the following reasons:

The TSUKAMOTO patent, as noted in the first line of the abstract and throughout the remainder of the specification, describes an apparatus for measuring the adhesion force of a thin film deposited on a substrate of a specimen. In describing the need for the device disclosed by the reference, it states that "there is a keen demand for a method capable of measuring an adhesion force of the thin film with high accuracy and thereby promoting quantitative analysis of separation tendency of the thin film." The references goes on to define adhesion force in terms of the separation characteristic that is a function of such force, as follows:

> The separation of the substrate and the thin film during the course of manufacturing immediately leads to a decrease in yield and an increase in cost. Another problem with the thin film device is the separation of the thin film due to heat and corrosion which depend upon the ambient conditions. Separation ascribable to temperature variation and the corrosion often effect the resistivity to environment and long-term reliability of the thin film.

To achieve the described measurement of adhesion force, the TSUKAMOTO patent describes the steps of applying a load to a test piece to introduce deformation to the test piece, and detecting acoustic emissions produced by such deformation. These steps of deforming and measuring the resulting acoustic emission are similar to those of the present invention, and correspond to the first two method steps of independent method claim 1 and the first two elements, defined in means-plus-function form, in independent apparatus claim 7.

However, as is clear from the text of the reference quoted above as well as the entire balance of the reference specification, the result of the deformation and acoustic measurement is an interpretation of the adhesion force of the film under measurement. In contrast, independent method claim 1 includes a final step of rating brittleness of the coating substance based on the detected acoustic emissions, and the final element of apparatus claim 7 is a rating means for rating brittleness of the coating substance on the basis of the detected acoustic emissions.

There exists no disclosure by the reference of any interpretation of the results of deformation and detection of acoustic emission in terms of brittleness. The reference itself provides no indication of correspondence between brittleness and adhesion force, nor does any other identified prior art.

Moreover, applicant is unaware of any correspondence between adhesion force and brittleness.

Applicant freely acknowledges that deforming a test film and detecting the acoustic emissions of such deformation may well provide an indication of the adhesion force of the film under test, and may also provide an indication of any number of material characteristics. However, there remains the requirement in the present independent claims of interpreting brittleness as a function of the acoustic emissions and a device for such interpretation. The mere fact of the description of deformation and acoustic emission measurement does not disclose, teach, or suggest all possible interpretations of such testing.

For these reasons, applicant respectfully suggests that the applied reference fails to disclose the full set of features recited in either of the independent claims and, by extension, any of the claims that depend therefrom.

Applicant notes that the present response includes neither the amendment of existing claims nor the addition of any new claims. Accordingly, applicant has taken no step that, in itself, necessitates any new search. For at least this reason, applicant respectfully requests that if the next Official Action includes the rejection of one or more claims, such rejection be made non-final.

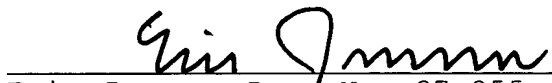
In light of the analysis provided above, applicant believes that the present application is in condition for

allowance and an early indication of the same is respectfully requested.

If the Examiner has any questions or requires further clarification of any of the above points, the Examiner may contact the undersigned attorney so that this application may continued to be expeditiously advanced.

Respectfully submitted,

YOUNG & THOMPSON



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